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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,685	04/26/2005	Takashi Saitoh	7412/84326	4377

42798 7590 11/28/2006

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EXAMINER

NGUYEN, TRI V

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/532,685

Applicant(s)

SAITOH, TAKASHI

Examiner

Tri V. Nguyen

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 2, 11-13 and 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/06, 12/05, 04/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the invention of Group I and formula (5) where R10 is a methoxy, R11 is a sulfonic acid, R12 is a hydrogen and R13 is a hydrogen corresponding to claims 1, 3-10, 14-15 and 22-25 in the reply filed on September 13, 2006 is acknowledged. The traversal is on the ground(s) that there was a lack of undue burden since an ISR was provided. This is not found persuasive because the examiner is not bound by a previous prosecution.

The requirement is still deemed proper and is therefore made FINAL.

The examiner remarks an inaccuracy in the election of species requirement within group I as the compound polyethylene dioxythiophene polystyrene sulfate of claim 15 is a specie of the polymer of group I and thus is included as one of the member in the election of the formula. Therefore, the present office action is directed to claims 1, 3-9, 14 and 22-25.

Information Disclosure Statement

2. The information disclosure statement filed on December 14, 2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a translation was not provided for the JP 5-504153 and JP 5-503953 references. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Art Unit: 1751

Priority

3. Certified copy of the translated foreign priority documents are requested for determining the priority of the claimed invention. The present office action indicates the various rejections based on the current possible priority.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites "high molecular weight compound" in lines 2-3. It is unclear as to the claimed limitation of "high molecular weight" as a numerical range or cutoff is not shown (how high is high? 10,000? 100,000?).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1751

6. Claims 1, 3 and 22-25 are rejected under 35 U.S.C. 102(a) as being anticipated by Carroll et al. (US 2002/0161101).

Carroll et al. disclose an electroconductive composition obtained by dissolving PVDF and HFP in N,N-dimethylacetamide, stirring the solution, adding MWNT followed by sonication (page 5, parag. 65). The resulting solution is then drop cast as a film on a substrate heated at 120° C (page 5, parag. 66).

Regarding claim 3, the molecular weights of the polymers are approximately 50,000 and 500,000.

Accordingly, the teachings of Carroll et al. anticipate the material limitations of the present claims.

7. Claims 1, 8 and 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Glatkowski et al. (US 2003/012111).

Glatkowski et al. disclose a composition obtained by mixing a polymer such as polyimide with nanotubes in solvent followed by stirring and sonication. The resulting solution is casted as an electrically conductive film on a substrate and dried by imparting heat (page 4, parag. 52-53 and page 7, parag. 88-89).

Regarding claim 8, the polyimide polymer has inherently water-soluble properties.

Accordingly, the teachings of Glatkowski et al. anticipate the material limitations of the present claims.

8. Claims 1 and 22-25 are rejected under 35 U.S.C. 102(a)/(e) as being anticipated by Eikos, Inc. (WO 03/013199).

Art Unit: 1751

Eikos, Inc. discloses a composition comprising a solvent, a polymeric matrix and carbon nanotubes (abstract and page 10, lines 7-19). The composite obtained by mixing and sonication is applied as a coating to a substrate and dried to remove the solvent (page 11, lines 4-11 and page 17, lines 5-15).

Accordingly, the teachings of Eikos, Inc. anticipate the material limitations of the present claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski et al. (US 2003/012111).

Glatkowski et al. disclose the composition of claim 1 but do not explicitly disclose the presence of a surfactant. Although Glatkowski et al generally teaches the inclusion of surfactant in their composition (page 4, parag. 61), the reference does not require the component(s) with sufficient specificity to constitute anticipation.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to have formulated a composition, as taught by Glatkowski et al, which contained surfactant in the claimed amounts disclosed and taught by Glatkowski et al. therefore, one of ordinary skill in the art would have had a reasonable expectation of success, because such a composition containing a surfactant component is expressly suggested by the Glatkowski et al

Art Unit: 1751

disclosure and therefore is an obvious formulation.

11. Claims 4-5, 8-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. as applied to the claims above, and further in view of Mitsubishi Rayon Co LTD (JP 2002-140930, hereon referred to as Mitsubishi '930 – a machine translation is currently provided with the certified translation being performed).

Carroll et al. disclose the composition of claim 1 but do not explicitly disclose the presence of a surfactant, a basic compound and a conducting polymer of formula (5).

In an analogous art, Mitsubishi '930 disclose a composition with the water-soluble conducting polymer of formula (5) (page 4), a high molecular weight component (page 7, parag. 28), a surfactant (page 8, parag. 31) and a basic compound (page 8, parag. 34).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 14, any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

12. Claims 4, 8-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. as applied to the claims above, and further in view of Mitsubishi Rayon Co LTD (JP

Art Unit: 1751

2000-219739, hereon referred to as Mitsubishi '739 – a machine translation is currently provided with the certified translation being performed).

Carroll et al. disclose the composition of claim 1 but do not explicitly disclose the presence of a basic compound and a conducting polymer of formula (5).

In an analogous art, Mitsubishi '739 disclose a composition with the water-soluble conducting polymer of formula (5) (page 6, parag. 29-30 and page 12, parag. 59) and a basic compound (page 9, parag. 39-40).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 14, any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

13. Claims 3-5, 9-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski et al. as applied to the claims above, and further in view of Mitsubishi Rayon Co LTD (JP 2002-140930, hereon referred to as Mitsubishi '930 – a machine translation is currently provided with the certified translation being performed).

Art Unit: 1751

Glatkowski et al. disclose the composition of claim 1 but do not explicitly disclose the presence of a high molecular weight compound, a basic compound and a conducting polymer of formula (5).

In an analogous art, Mitsubishi '930 disclose a composition with the water-soluble conducting polymer of formula (5) (page 4), a high molecular weight component (page 7, parag. 28), a surfactant (page 8, parag. 31) and a basic compound (page 8, parag. 34).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 14, any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

14. Claims 4, 9-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski et al. as applied to the claims above, and further in view of Mitsubishi Rayon Co LTD (JP 2000-219739, hereon referred to as Mitsubishi '739 – a machine translation is currently provided with the certified translation being performed).

Glatkowski et al. disclose the composition of claim 1 but do not explicitly disclose the presence of a basic compound and a conducting polymer of formula (5).

Art Unit: 1751

In an analogous art, Mitsubishi '739 disclose a composition with the water-soluble conducting polymer of formula (5) (page 6, parag. 29-30 and page 12, parag. 59) and a basic compound (page 9, parag. 39-40).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 14, any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

15. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. or Glatkowski or Eikos, Inc. as applied to claim 1 above, and further in view of Eikos, Inc. (WO 03/013199) and Search Report (Nguyen).

Carroll et al. or Glatkowski or Eikos, Inc. disclose the composition of claim 1 but do not explicitly disclose the inclusion of a silane coupling agent of formula (1).

In an analogous art, Eikos, Inc. discloses an electrically conductive composition with the compound of formula (5) (see table 2, page 19 and the search report showing the compound on page 2).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for

Art Unit: 1751

the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. or Glatkowski or Eikos, Inc. as applied to claim 1 above, and further in view of Hsu (US 2004/0206942).

Carroll et al. or Glatkowski or Eikos, Inc. disclose the composition of claim 1 but do not explicitly disclose the inclusion of a colloidal silica component.

In an analogous art, Hsu discloses an electrically conductive composition with a colloidal component (page 5, parag. 71-72 and example 7, page 13).

It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Conclusion

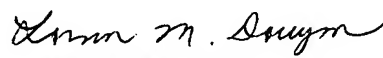
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri V. Nguyen whose telephone number is (571) 272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nvt


LORNAM. DOUYON
PRIMARY EXAMINER